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Figure 1

**MHTHGCKYTILYRFHNDC** Original protein in sample

MHTHGCK YTILYR FHNDC After digestion - 3 smaller tryptic fragments

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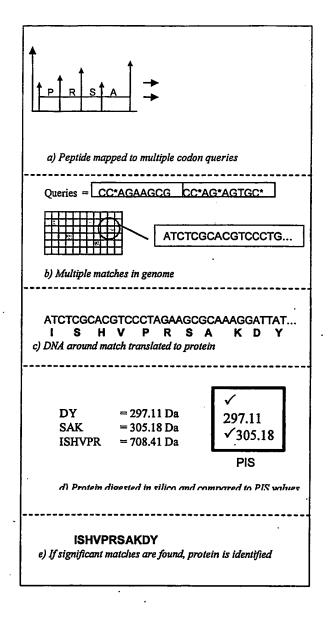
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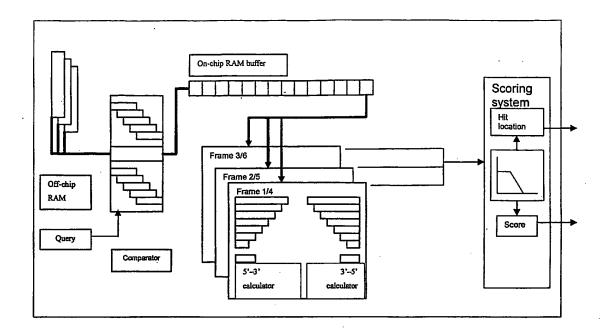
Figure 2



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Figure 3

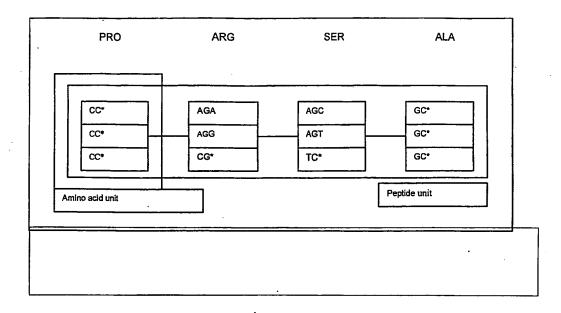


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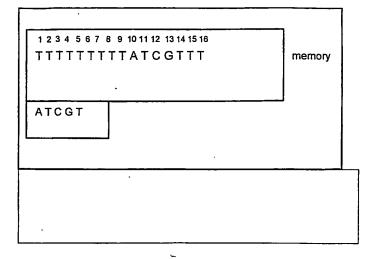
Figure 4



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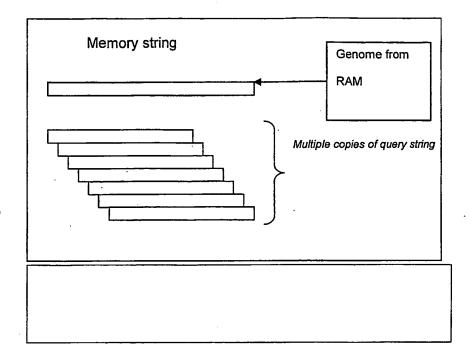
Figure 5



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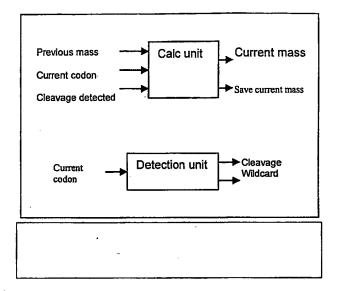
Figure 6



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Figure 7

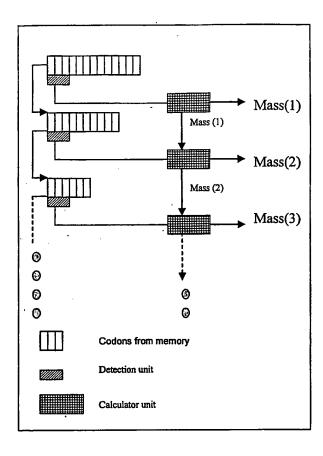


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Figure 8



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Figure 9

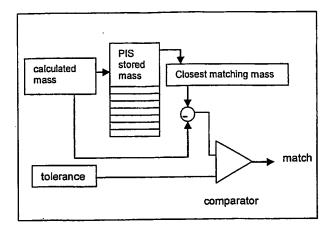
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Γ	Original	Comple	men	
	ATG	CAT	•	
	ACT	AGT	•	
	CCA	TGG	3	•
	GAC	GTC	<u> </u>	

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Figure 10

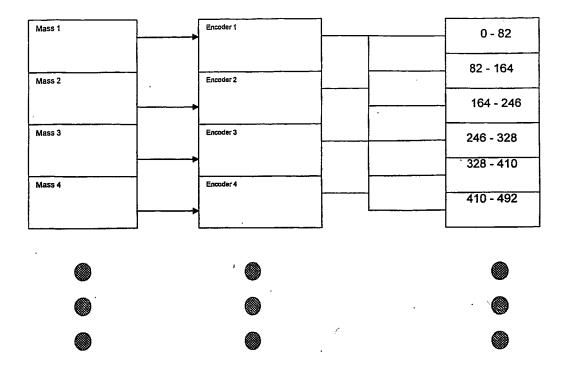


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Figure 11

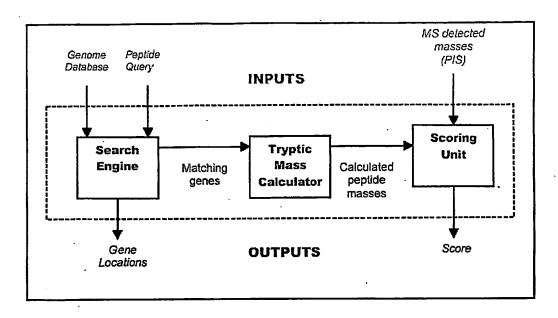


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Figure 12

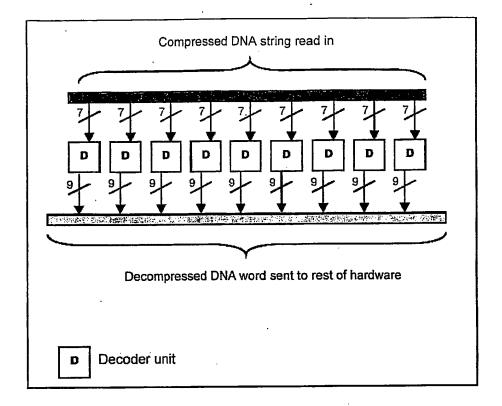


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Figure 13

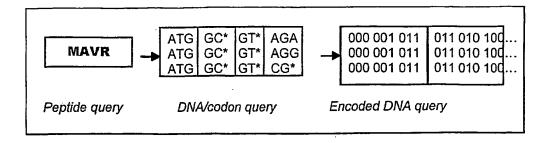


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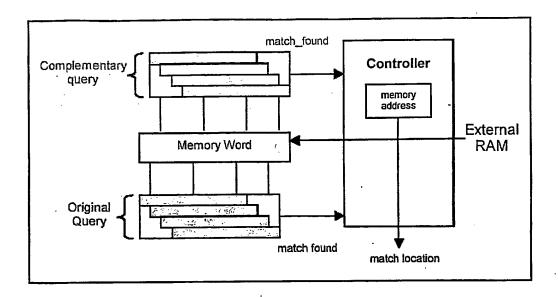
Figure 14



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Figure 15



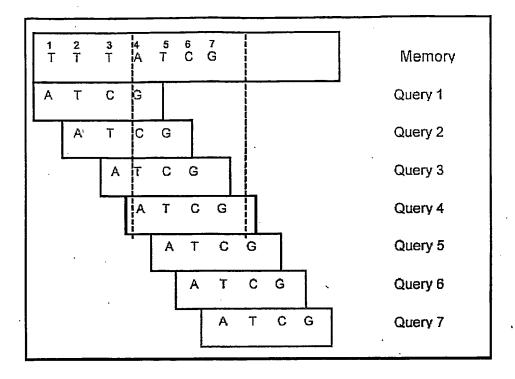
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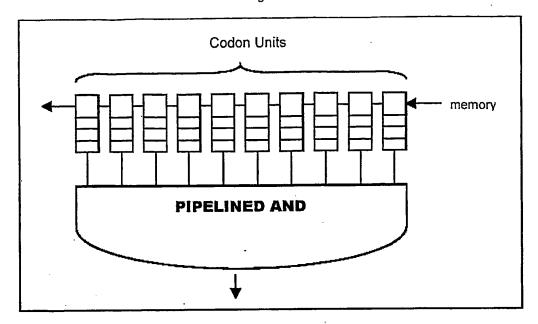
Figure 16



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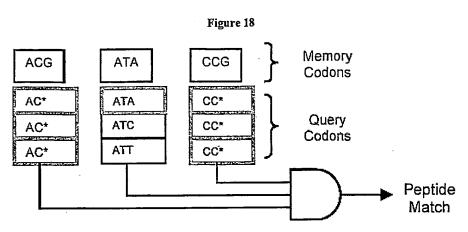
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Figure 17



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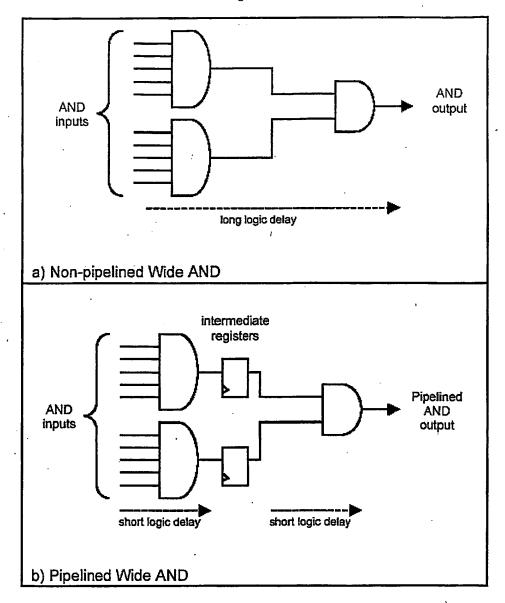




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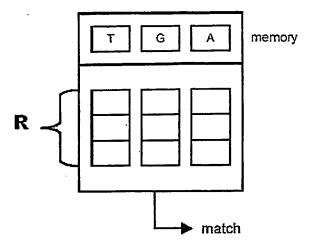
Figure 19



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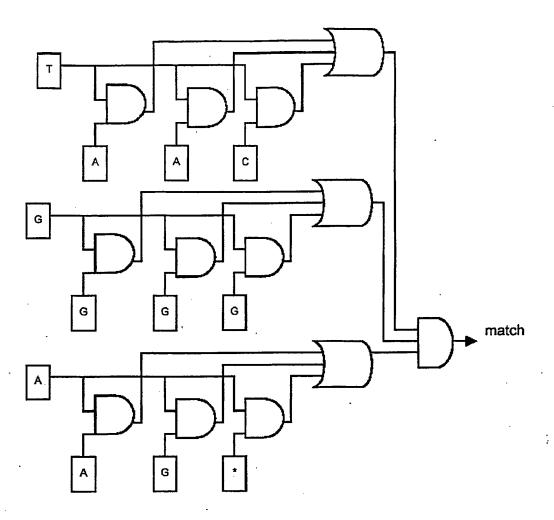
Figure 20



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Figure 21

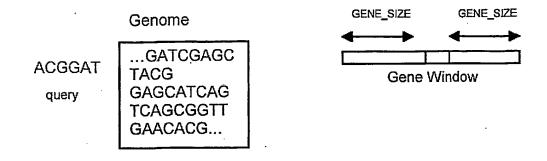


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Figure 22

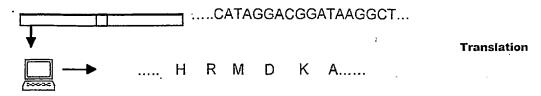


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Figure 23



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MDK

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Figure 24

R M D K Α..... Digestion 225.32 Da ...HRCalculation

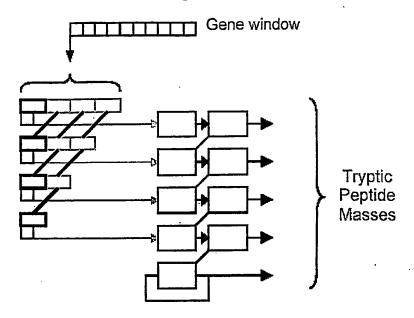
127.11 Da

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Figure 25



**Active Codon** 

**Detection Units and Mass LUTs** 

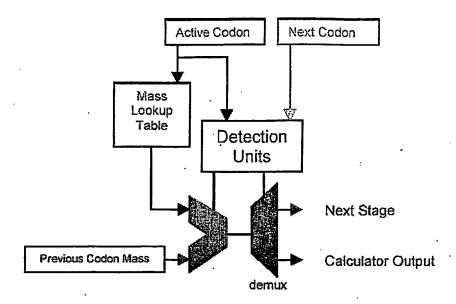
Mass Accumulators

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Figure 26



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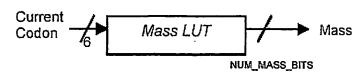
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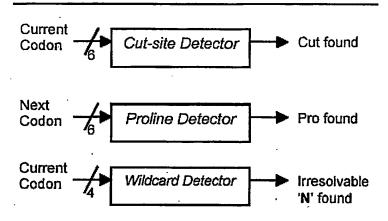
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Figure 27



# a) Mass Lookup Table(LUT)



# b) Detection Units

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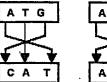
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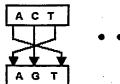
Figure 28

ATG ACT CCA GAC Original strand Complementary strand GTC TGG AGT CAT

## a) DNA Strand and its Complement

Original	Complement	
ATG	CAT	
ACT	AGT	
CCA	TGG	
GAC	GTC	





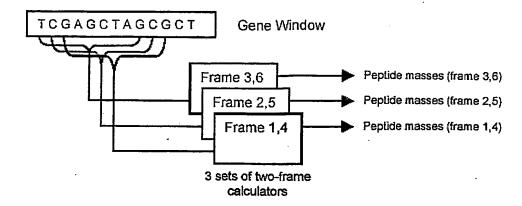
a) Mapping codons to their complements

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Figure 29

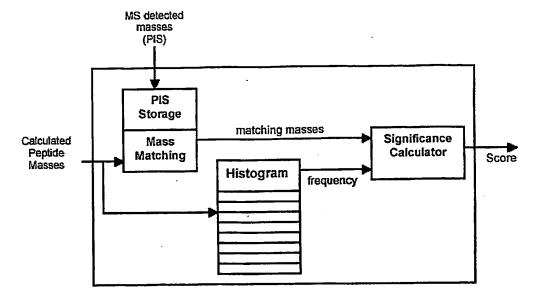


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Figure 30



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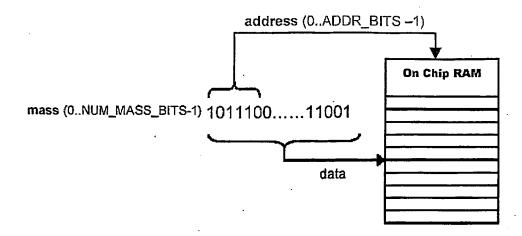
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Figure 31



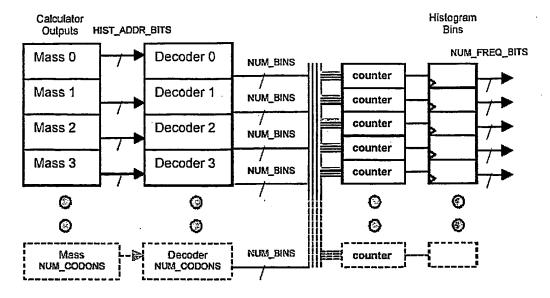
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Figure 32



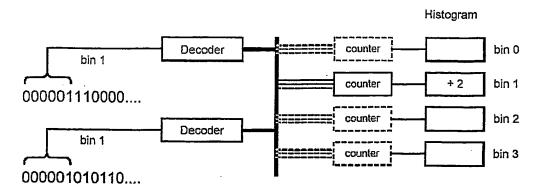
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Figure 33

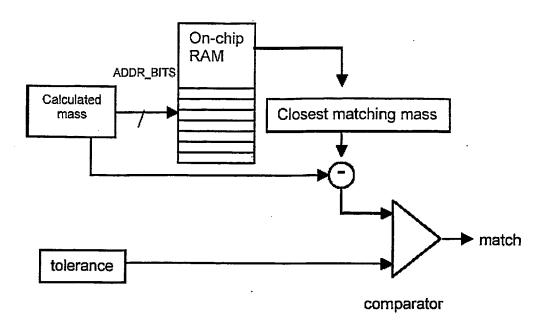


Calculator outputs

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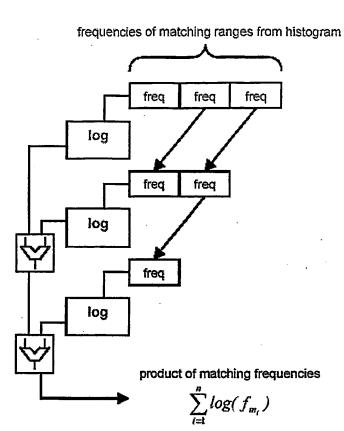
Figure 34



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Figure 35

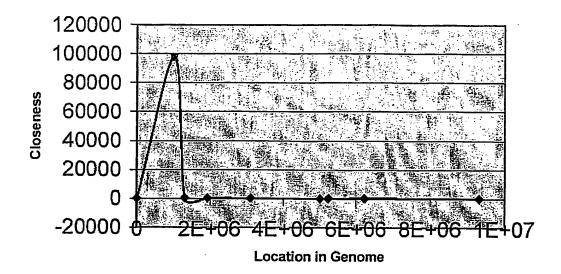


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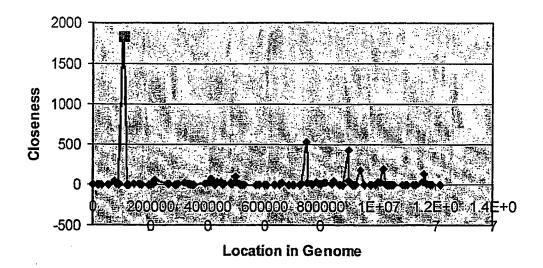
Figure 36 Closest matches between "ilfak" and "eyvpr"



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Figure 37 Closest Matches Between "saav" and "eyvp"



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Figure 38

